



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,679	08/09/2001	Nagayuki Takao	0152-0574P-SP	2364

2292 7590 07/14/2003

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
----------	--------------

1714

DATE MAILED: 07/14/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/924,679

Applicant(s)

TAKAO ET AL.

Examiner

Callie E. Shosho

Art Unit

1714

-- Th MAILING DATE of this communication appears on th cover sheet with the correspond nc addr ss --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. All outstanding rejections except for those described below are overcome by applicant's amendment filed 5/5/03.

Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-3, 5-12, 16, and 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Ohta et al. (U.S. 6,211,265).

The rejection is adequately set forth in paragraph 4 of the office action mailed 2/5/03, Paper No. 5, and is incorporated here by reference.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohta et al. (U.S. 6,211,265) in view of either Doi et al. (U.S. 6,378,999) or Yatake et al. (U.S. 6,051,057).

The rejection is adequately set forth in paragraph 7 of the office action mailed 2/5/03, Paper No. 5, and is incorporated here by reference.

Art Unit: 1714

6. Claims 1-16 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 53140105 in view of Kitamura et al. (U.S. 6,498,222).

The rejection is adequately set forth in paragraph 8 of the office action mailed 2/5/03, Paper No. 5, and is incorporated here by reference.

7. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 53140105 in view of Kitamura et al. as applied to claims 1-16 and 19-20 above, and further in view of either Doi et al. (U.S. 6,378,999) or Yatake et al. (U.S. 6,051,057).

The rejection is adequately set forth in paragraph 9 of the office action mailed 2/5/03, Paper No. 5, and is incorporated here by reference.

8. Claims 1-16 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 53140105 in view of Ohta et al. (U.S. 6,211,265).

The rejection is adequately set forth in paragraph 10 of the office action mailed 2/5/03, Paper No. 5, and is incorporated here by reference.

9. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 53140105 in view of Ohta et al. as applied to claims 1-16 and 19-20 above, and further in view of either Doi et al. (U.S. 6,378,999) or Yatake et al. (U.S. 6,051,057).

The rejection is adequately set forth in paragraph 11 of the office action mailed 2/5/03, Paper No. 5, and is incorporated here by reference.

Response to Arguments

10. Applicant's arguments filed 5/5/03 have been fully considered but they are not persuasive.

Specifically, applicant argues that:

(a) Ohta et al. do not disclose dye as presently claimed.

(b) Doi et al. is directed to pigment containing ink and not dye containing ink as presently claimed.

(c) Yatake et al. do not teach the use of dye that has solubility in water lower than soluble in water-soluble organic solvent as presently claimed.

(d) JP 53140105 do not disclose the use of quick drying property imparting agent having solubility in water lower than solubility in water-soluble solvent as presently claimed.

(e) There is no disclosure in Kitamura et al. of dye having solubility in water lower than solubility in water-soluble solvent as presently claimed

With respect to argument (a), applicant argues that Ohta et al. is not a relevant reference against the present claims given that Ohta et al. is silent with respect to whether the dye has required degree of solubility in water as well as given that Ohta et al. do not disclose the use of fluorescent dyes.

However, it is noted that the present claims require the use of a dye "wherein the dye, if soluble in said water-soluble solvent, has a solubility in water lower than a solubility in the water-soluble solvent, said solubility of the dye in water being 10 wt% or lower". Such disclosure clearly encompasses the use of all types of dyes. It is only "if" the dye is soluble in

said water-soluble solvent, that the dye must meet the limitations regarding the solubility of the dye in water and solvent. That is, in light of the above claim language, aren't the present claims open to all types of dyes including water-soluble dye (solvent-insoluble dye), i.e. when the dye is not soluble in water-soluble solvent, and water-insoluble dye (solvent-soluble dye), i.e. dye with solubility in water less than 10 wt. %? Clarification is requested.

It is agreed that there is no explicit disclosure in Ohta et al. that the dye has solubility in water lower than solubility in water-soluble solvent wherein the solubility of the dye in water is less than 10 wt.%. However, Ohta et al. do disclose that the dye utilized is either dye that is soluble in water or dye that is insoluble in water such as oil-soluble dye, vat dye, or disperse dye. With respect to the later, given that the dye is defined as "insoluble in water", it is clear that the dye inherently has little or no solubility in water, i.e. solubility in water would necessarily have to be less than 10 wt.%, and thus, absent evidence to the contrary, the dye would meet the claimed limitation that the dye has solubility in water lower than solubility in solvent.

Further, as discussed above, it is noted that claim 1 encompasses all types of dyes including water-soluble dyes as disclosed by Ohta et al. That is, the present claims encompass both solvent-soluble dyes as well as solvent-insoluble dyes (claim 12). It is only "if the dye is soluble in water-soluble solvent", that the dye must meet the claimed limitation regarding the solubility. Thus, Ohta et al.'s disclosure of water-soluble dye would clearly meet the limitations of the present claims.

Applicants also argue that there is no disclosure in Ohta et al. of fluorescent dye. However, it is noted that only claims 13-15 require the use of fluorescent dye and that Ohta et al. is not used as a reference against these claims.

With respect to argument (b), applicant argues that while Doi et al. mentions the use of dyes, all the examples of Doi et al. utilize carbon black.

However, while it is agreed that all the examples of Doi et al. utilize pigment, “applicant must look to the whole reference for what it teaches. Applicant cannot merely rely on the examples and argue that the reference did not teach others.” *In re Courtright*, 377 F.2d 647, 153 USPQ 735,739 (CCPA 1967). Further, “nonpreferred disclosures can be used. A nonpreferred portion of a reference disclosure is just as significant as the preferred portion in assessing the patentability of claims.” *In re Nehrenberg*, 280 F.2d 161, 126 USPQ 383 (CCPA 1960). A fair reading of Doi et al. as a whole discloses the use of water-insoluble dyes or oil-soluble dyes. It is clear, absent evidence to the contrary, that such dyes would inherently have solubility in water lower than solubility in solvent and that these dyes would have little or no solubility in water given that they are defined as water-insoluble or oil-soluble dyes.

Further, even if Doi et al. did not disclose dye identical to that presently claimed, it is noted that Doi et al. is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely the use of silicone or fluorine-based surfactant in ink jet inks, and in combination with the primary reference, discloses the presently claimed invention.

With respect to argument (c), it is agreed that there is no explicit disclosure in Yatake et al. of dye that has solubility in water lower than soluble in water-soluble organic solvent as presently claimed. However, the present claims only require that the dye possess such solubility "if the dye is soluble in water-soluble solvent". That is, as discussed in the response to argument (a) above, the claims are clearly open to all types of dyes including those soluble in water-soluble solvent and those insoluble in water-soluble solvent. Thus, Yatake et al.'s disclosure of the use of water-soluble dye (col.5, lines 19-25) clearly meets the requirements of the present claim.

With respect to argument (d), it is agreed that there is no disclosure in JP 53140105 of quick drying property imparting agent as presently claimed which is why JP 53140105 is used in combination with either Kitamura et al. or Ohta et al. which are each drawn to ink jet ink, as is JP 53140105, and which each disclose the use of quick drying property imparting agent identical to that presently claimed.

It is noted that a copy of the English translation of JP 53140105 is included with this office action.

With respect to argument (e), it is agreed that there is no explicit disclosure in Kitamura et al. of dye having solubility in water lower than solubility in water-soluble solvent as presently claimed. However, firstly it is noted, as set forth in the response to argument (b) above, that Kitamura et al. is used as a teaching reference and thus it is not necessary for this reference to contain all the features of the presently claimed invention. Rather, this reference is used to teach

Art Unit: 1714

the use of azole compound such as 1H-benzotriazole-1-methanol in ink jet inks order to prevent clogging of printer nozzle.

Further, it is noted that col.7, lines 54-61 of Kitamura et al. disclose the use of dyes which are insoluble in water. It is clear that such dyes intrinsically possess little or no, i.e. less than 10 wt.%, solubility in water. Further, Kitamura et al. disclose the use of water-soluble dyes. Given that the present claims are open to the use of all types of dyes (as discussed in the response to argument (a) above), it is clear that the disclosure of Kitamura et al. of water-soluble dye meets the requirements of the present claims. That is, the present claims only require that the dye meet the claimed solubility requirements "if" the dye is soluble in water-soluble solvent.

JP 53140105 discloses ink jet ink comprising water, solvent, water-soluble polymer and fluorescent dye, however, there is no disclosure of quick drying property imparting agent. Kitamura et al., which is drawn to ink jet inks, disclose the use of azole compound such as 1H-benzotriazole-1-methanol, which is identical to the quick drying property imparting agent presently claimed, in ink jet inks order to prevent clogging of printer nozzle.

In light of the above, it is the examiner's position that there is good motivation to combine JP 53140105 with Kitamura et al.

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after


Art Unit: 1714

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 703-305-0208. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
July 9, 2003